

## **Weekly report (2017-5-08-----2017-5-14)**

May 14<sup>th</sup>, 2017, 19:20pm

### **1. Projects:**

1) Geo-privacy

Xu Meng's project is in progress.

2) File System

Ya Ting's project – "File System" is under way.

3) Graduation thesis

I'm going to go back to my school this week and make full preparations for my thesis oral defense and prepare for the exam of TOEFL and GRE.

### **2. Knowledge:**

I began to systematically read Prof. Chen's "big black book" – Data Visualization, and take this opportunity to lay a solid foundation in the field of visualization.

In the process of reading the book, I found out that some of the classic methods have been produced long ago, such as stream graph and fisheye.

Stream graph was implemented in 2006 in the visualization of the historical events of Napoleon into Moscow<sup>[1]</sup>, and now we can find it in D3 Real-Time streamgraph (Graph Data Visualization) and can be made in three-dimensional or dynamic real-time effect.

Fisheye was invented in 1981 and I read a paper<sup>[2]</sup> which is related to fisheye distortion, the work of this article was published in TVCG's top journals in 2016. It wants people to zoom in on the area being viewed while viewing a certain path while making all the surrounding geographic information as much as possible without changing their relative position. Fisheye visualization also uses a similar design to complete zoom in on a certain area.

### **3. Research:**

I read three papers as follows:

- [1] A Visual Analytics Approach for Understanding Egocentric Intimacy Network Evolution and Impact Propagation in MMORPGs.

- [2] Roberts JC, Headleand C, Ritsos PD. Sketching designs using the five design-sheet methodology. IEEE transactions on visualization and computer graphics. 2016 Jan 31;22(1):419-28.
- [3] Sun G, Liang R, Qu H, Wu Y. Embedding spatio-temporal information into maps by route-zooming. IEEE transactions on visualization and computer graphics. 2016 Feb 26.

#### 4. Self-reflection

I found more interesting applications in the visualization field and I'm deepening my understanding of visualization. Although I go back to my school, I will continue to read papers and books about the visualization field.

#### Reference

- [1] Tufte ER. Beautiful evidence. New York. 2006.
- [2] Sun G, Liang R, Qu H, Wu Y. Embedding spatio-temporal information into maps by route-zooming. IEEE transactions on visualization and computer graphics. 2016 Feb 26.